

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. A stabilisation system for a section of a submarine elongate structure, comprising an end restraint at each end of the section of the elongate structure, each end restraint being adapted to be secured to the elongate structure to transfer axial tension generated by lateral movement of the elongate structure to the seabed or ground on which the end restraint is installed, each restraint comprising a pair of restraint faces spaced apart to define a gap through which the elongate structure can extend, each face being configured to control curvature of the elongate structure during lateral movement thereof.
2. A stabilisation system according to claim 1 wherein at least one intermediate restraint is provided between the two end restraints for limiting lateral movement of the structure at the location of the intermediate restraint.
3. A stabilisation system according to claim 1 or 2 wherein each restraint face is curved.
4. A stabilisation system according to claim 1, 2 or 3 wherein each restraint face comprises a continuous face.
5. A stabilisation system according to claim 1, 2 or 3 wherein each restraint face comprises a discontinuous face defined by a plurality of restraint zones disposed in the required configuration.
6. A stabilisation system according to claim 5 wherein each restraint zone is defined by a restraint column adapted to be embedded in the seabed or ground.
7. A stabilisation system according to claim 6 wherein the columns are connected one to the other to provide an integral restraint structure.

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8. A stabilisation system for a section of a submarine elongate structure comprising an end restraint at each end of the section of the elongate structure and at least one intermediate restraint between the two end restraints for limiting lateral movement of the structure at the location of the restraint, each end restraint being adapted to be secured to the elongate structure to transfer axial tension generated by lateral movement of the elongate structure to the seabed or ground on which the end restraint is installed, each restraint comprising a pair of restraint faces spaced apart to define a gap through which the elongate structure can extend, each face being configured to control curvature of the elongate structure during lateral movement thereof.
9. A restraint device comprising a pair of restraint faces spaced apart to define a gap therebetween to receive a section of an elongate structure, each restraint face being configured to control curvature of the elongate structure during lateral deflection thereof.
10. A restraint device according to claim 9 wherein each restraint face is curved.
- SUB A3 11. A restraint device according to claim 9 or 10 wherein each restraint face comprises a continuous face.
12. A restraint device according to claim 9 or 10 wherein each restraint device comprises a discontinuous face defined by a plurality of restraint zones disposed in the required configuration.
13. A restraint device according to claim 12 wherein each restraint zone is defined by a restraint column adapted to be embedded in the seabed or ground.
14. A restraint device according to claim 13 wherein the columns are connected one to the other to provide an integral restraint structure.

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- 5 15. A stabilisation system according to claim 8 wherein each end restraint comprises a restraint device according to any one of claims 9 to 14, together with a collar structure adapted to be secured to the elongate structure and bear on the end restraint device to transfer axial loading thereto.
- 10 16. A method of stabilising a submarine elongate structure comprising the steps of: anchoring two axially spaced apart sections of the elongate structure to the seabed or ground using end restraints, each restraint presenting two restraint faces on opposed sides of the elongate structure, each restraint face being of a configuration for limiting curvature of the elongate structure.
17. A method according to claim 16 further comprising the step of installing one or more intermediate restraints between the two end restraints.
- 15 18. A method of stabilising a submarine elongate structure comprising the steps of: anchoring two axially spaced apart sections of the elongate structure to the seabed or ground using end restraints, and installing one or more intermediate restraints between the two end restraints; each restraint presenting two restraint faces on opposed sides of the elongate structure, each restraint face being of a configuration for limiting curvature of the
- 20 elongate structure.
19. A stabilisation system substantially as herein described with reference to the accompanying drawings.
20. A restraint device substantially as herein described with reference to the accompanying drawings.
- 25 21. A method of stabilising a submarine elongate structure substantially as herein described.